ASPE ASSISTANT SECRETARY FOR PLANNING AND EVALUATION | OFFICE OF HUMAN SERVICES POLICY

BRIEF
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Behavioral Health Diagnoses and Treatment Services for Children and Youth Involved with the Child Welfare System

Medicaid Claims Data Provide Detailed Information about Behavioral Health Services for Children Involved with the Child Welfare System

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KEY POINTS

- **Many Medicaid and Children's Health Insurance Program (CHIP)-enrolled children and youth who are also involved with the child welfare system had behavioral health diagnoses.** Nationally in 2019, more than 40 percent of Medicaid or CHIP-enrolled children and youth ages 3 to 17 involved with the child welfare system had been diagnosed with such conditions.
- **Children and youth involved with the child welfare system used more behavioral health services than other children and youth on Medicaid.** In all age groups, Medicaid or CHIP-enrolled children and youth involved with the child welfare system were several times more likely to use each type of behavioral health service analyzed than those in other Medicaid eligibility groups. Over 45 percent used behavioral health services, primarily outpatient services (40.3 percent) and psychotropic medications (26.3 percent).
- **Those with behavioral health diagnoses usually received some behavioral health treatment.** Most Medicaid or CHIP-enrolled children and youth involved with the child welfare system who had behavioral health diagnoses received behavioral health services (90 percent), as did more than 10 percent of those without such diagnoses.
- **Psychotropic medications were commonly prescribed.** Of the Medicaid or CHIP-enrolled children and youth involved with the child welfare system who had a behavioral health diagnosis, more than half received psychotropic medication, and nearly a third received two or more classes of psychotropic medications during the year.
- **Many children and youth without a behavioral health diagnosis also received psychotropic medications.** Seven percent of Medicaid or CHIP-enrolled children and youth involved with the child welfare system ages 3 to 17, and 9 percent of those ages 12 to 17, who did *not* have a behavioral health diagnosis in their Medicaid claims nonetheless had been prescribed psychotropic medication.
- **Rates of psychotropic medication use among children and youth involved with the child welfare system varied widely by state.** At the low and high ends of the distribution, 6.0 percent of child welfare-involved Medicaid or CHIP-enrolled children and youth ages 3 to 17 in Georgia received psychotropic medication, compared with 47.2 percent in Virginia.

BACKGROUND

Child welfare and behavioral health professionals have long been aware that children and youth in foster care and those exiting foster care to adoption and guardianship homes frequently have behavioral health conditions (Burns et al., 2004; Pires et al., 2013; Medicaid and CHIP Payment and Access Commission [MACPAC], 2015). There have also been longstanding concerns that children and youth in foster care are overprescribed psychotropic medications (Raghavan et al., 2005; Raghavan et al., 2012; Stambaugh et al., 2012; MACPAC, 2015). Concerns often focus on psychotropic medications because limited safety and efficacy data exist for individuals under age 18 and because, even when appropriately prescribed, administration of these medications requires comprehensive behavioral health assessment which may be difficult to obtain (American Academy of Child and Adolescent Psychiatry, 2015). In addition, antipsychotic medications specifically have potential metabolic side effects such as weight gain and predisposition to type 2 diabetes, and their long-term effects on brain development remain unclear (Ninan et al., 2014; Burcu et al., 2017; Libowitz and Nurmi, 2021). While federal guidance and statutes emphasize close monitoring of psychotropic medications for youth in the child welfare system (Naylor et al., 2007; U.S. Government Accountability Office, 2017; Fernandez-Alcantara et al., 2017; U.S. Department of Health and Human Services, Administration for Children and Families, 2012), oversight has been difficult (U.S. Department of Health and Human Services, Office of Inspector General, 2018). In part because of data limitations, most previous studies of behavioral health services utilization in the child welfare system have focused on a limited number of states, or have examined a single class of medications, such as antipsychotics.

In this brief, "involved with the child welfare system" refers to children and youth whose Medicaid eligibility was based on their participation in the Title IV-E foster care and permanency programs. These children and youth were either in foster care or had exited foster care to the home of an adoptive parent or guardian and their adoption or guardianship agreement included continued Medicaid coverage.

METHODS

This analysis focuses on behavioral health diagnoses and services utilization among child and adolescent Medicaid and Children's Health Insurance Program (CHIP) beneficiaries in the child welfare population. It relies on administrative data on Medicaid claims from the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF). The analysis used 2018-2019 data from the TAF annual Demographics and Eligibility (DE) file and the four claims files: inpatient (IP), long-term care (LT), other services (OT), and pharmacy (RX). Claims records from 2018 to 2019 were used to identify behavioral health conditions in 2019 and claims from 2019 were used to identify behavioral health service and medication use. For national analyses, the study population was limited to beneficiaries who were enrolled in Medicaid or CHIP for at least six consecutive months in all 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands; eligible for full or comprehensive benefits; and 3 to 17 years of age.

The child welfare population was identified using the child's most recent eligibility group code from the DE file, which identifies children who received Title IV-E (of the Social Security Act) foster care maintenance payments or federal adoption assistance or guardianship subsidies. The analysis included 719,908 children and youth involved with the child welfare system and 31,473,608 children and youth in other Medicaid eligibility categories. Thus, the child welfare group represented 2.2 percent of all child beneficiaries. Behavioral health

conditions were identified using standardized data definitions laid out by the Centers for Medicare and Medicaid Services (CMS) in the Chronic Conditions Data Warehouse (CCW).[1]

For this population, we examined the percentage who received any psychotropic medication in the year. Psychotropic medication classes include antidepressants, antipsychotics, anticonvulsants, antimanic medications, antiparkinsonian medications, anxiolytics-sedatives, benzodiazepines-barbiturates, central nervous system (CNS) agents, hypnotics, and stimulants.

To assess data quality, we used measures contained in the CMS DQ (Data Quality) Atlas.[2] In analyses that disaggregate states, we excluded states with unusable procedure codes on OT professional claims in 2019 (Utah) and states with unusable linkages of claims to beneficiary records in 2019 (Alabama, Rhode Island). In addition, we examined the number of beneficiaries with the child welfare eligibility group code in each state in the TAF and compared these data with publicly available caseload data from the Children's Bureau of the U.S. Department of Health and Human Services.[3] We excluded states where the eligibility group code in the TAF identified only a small portion of the child welfare population (Oklahoma, Oregon, Pennsylvania).

Analysis of data in this brief was conducted by staff at Mathematica under contract to the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.

RESULTS

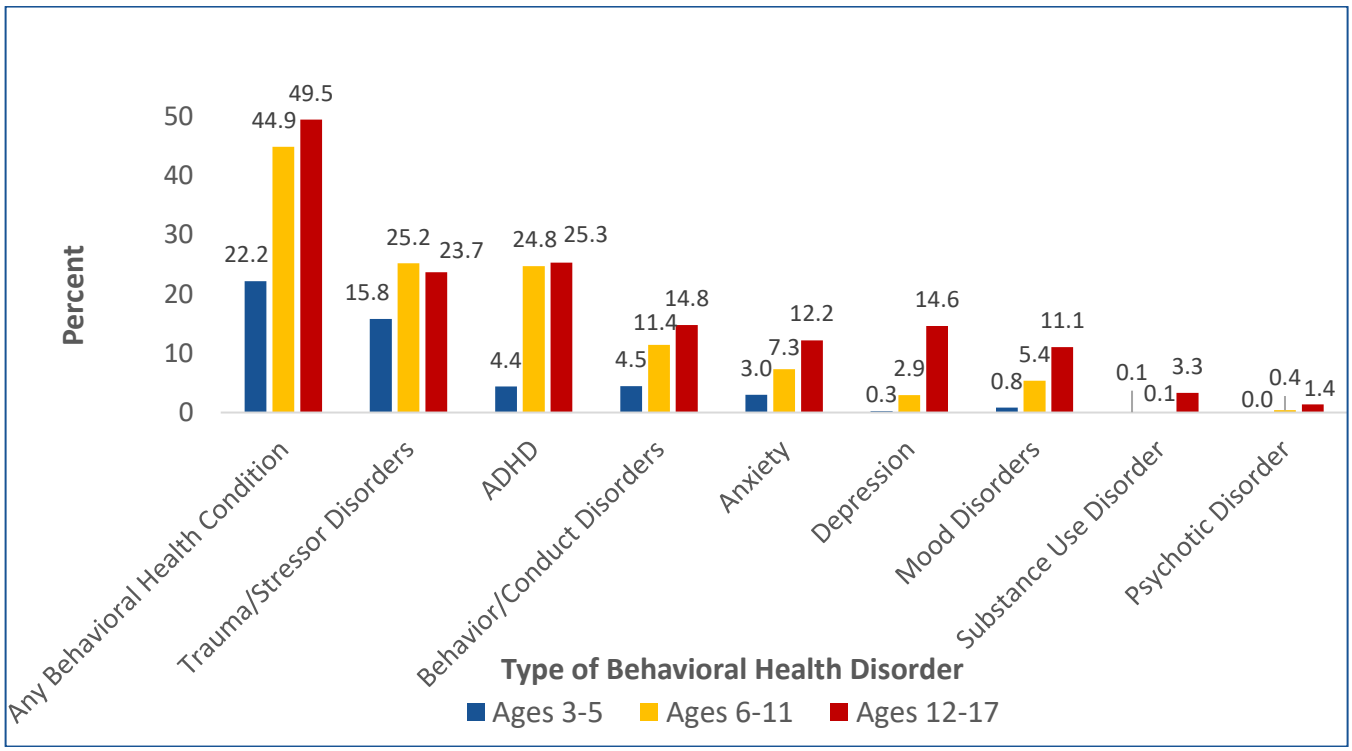
Many Medicaid or CHIP-enrolled children and youth in the child welfare population have behavioral health diagnoses, including for a range of mental health conditions. As shown in Figure 1 and Appendix Table 1, more than one in five children ages 3 to 5 in the child welfare group (22.2 percent) and nearly half of children and youth 6 to 11 and 12 to 17 in this group (44.9 and 49.5 percent, respectively) had behavioral health diagnoses listed on their Medicaid claims. Relatively common diagnoses include trauma/stressor related disorders, attention deficit hyperactivity disorder (ADHD), behavior/conduct disorders, anxiety, depression, and mood disorders. Rates of each type of disorder increased with age. Among younger children, ages 3 to 5, trauma/stressor related disorders were by far the most common behavioral health diagnosis, with nearly 16 percent of children in the child welfare group having such a diagnosis. Older children and youth experienced a broader range of diagnoses. Among other child Medicaid beneficiaries (i.e., not involved with the child welfare system), such as those who are eligible for Medicaid because of low family income or a disability, ADHD was the most commonly diagnosed condition, at 6.5 percent among children and youth ages 3 to 17 (Figure 2).

[1] To identify beneficiaries with behavioral health conditions, we used CMS's standardized approach for identifying people with behavioral health conditions in claims data, available from the CCW. For most behavioral health conditions, the CCW algorithm requires "at least 1 inpatient claim or 2 other non-drug claims of any service type" during a two-year reference period to identify beneficiaries considered to have a behavioral health condition during a particular year. More information is available at https://www2.ccwdata.org/web/guest.

[2] Data for states were considered unusable based on DQ Atlas thresholds for the following topics: Total Medicaid and CHIP Enrollment; Claims Volume: IP, LT, and OT; Diagnosis Code: IP, OT; Procedure Codes: OT Professional; National Drug Code: RX; and race/ethnicity. For more information, see the DQ Atlas at https://www.medicaid.gov/dq-atlas/welcome.

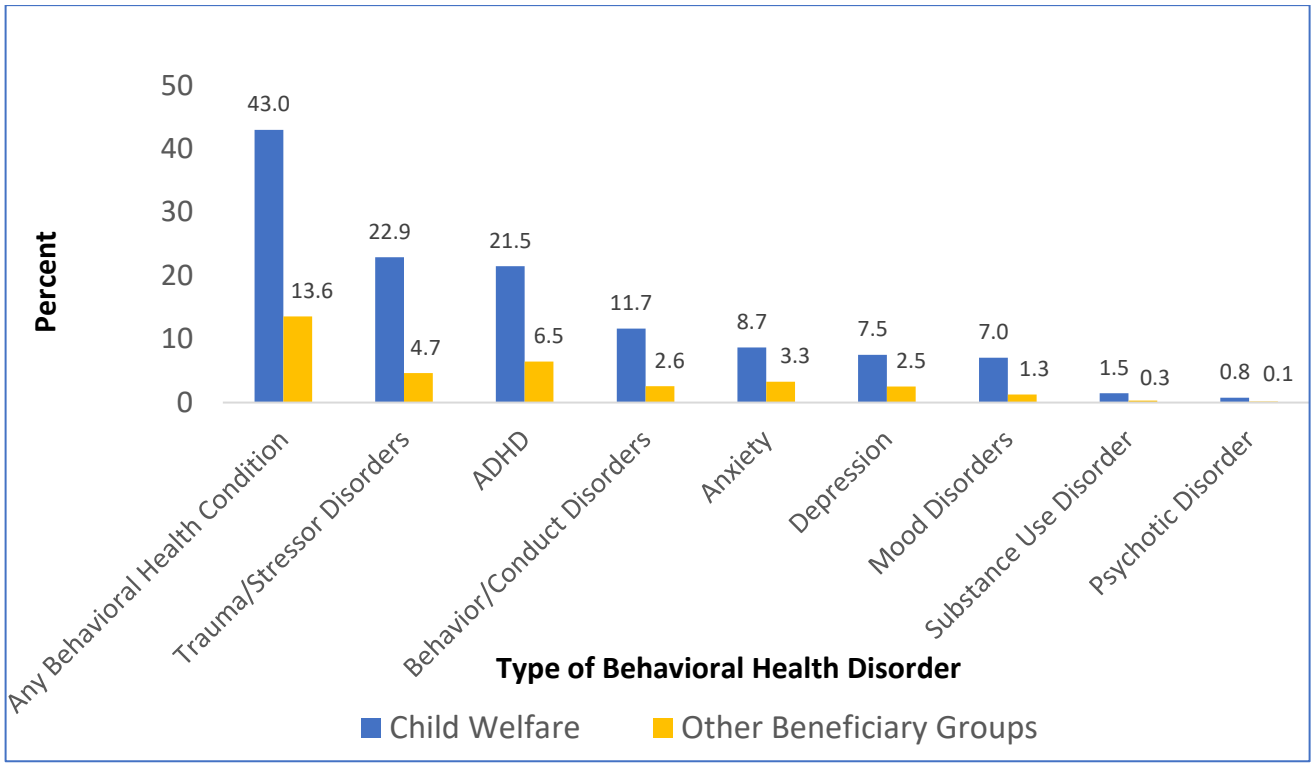
[3] These data are available at https://www.acf.hhs.gov/cb/report/programs-expenditure-caseload-data-2019.

Figure 1. Medicaid Beneficiaries Involved with the Child Welfare System Had High Prevalence of Behavioral Health Diagnoses, 2019



Children and youth in the child welfare eligibility group were diagnosed with most behavioral health conditions at three to four times higher prevalence compared to children and youth in other Medicaid/CHIP eligibility groups. Figure 2 and Appendix Table 1 compare behavioral health diagnosis rates for children and youth ages 3 to 17 in the child welfare group with those in other eligibility groups. In the child welfare population, 43.0 percent of children and youth ages 3 to 17 had any behavioral health condition, compared with 13.6 percent of children and youth in other Medicaid eligibility categories. All examined behavioral health disorders were several times more prevalent among children and youth in the child welfare eligibility group than among other beneficiaries of the same ages. For instance, trauma/stressor related disorders were nearly 5 times more prevalent, ADHD was over 3 times more prevalent, behavior/conduct disorders were 4.5 times more prevalent, and depression was 3 times more prevalent in the child welfare group. In addition to the data on ages 3 to 17, Appendix Table 1 shows behavioral health diagnoses for subgroups of children and youth ages 3 to 5, 6 to 11, and 12 to 17.

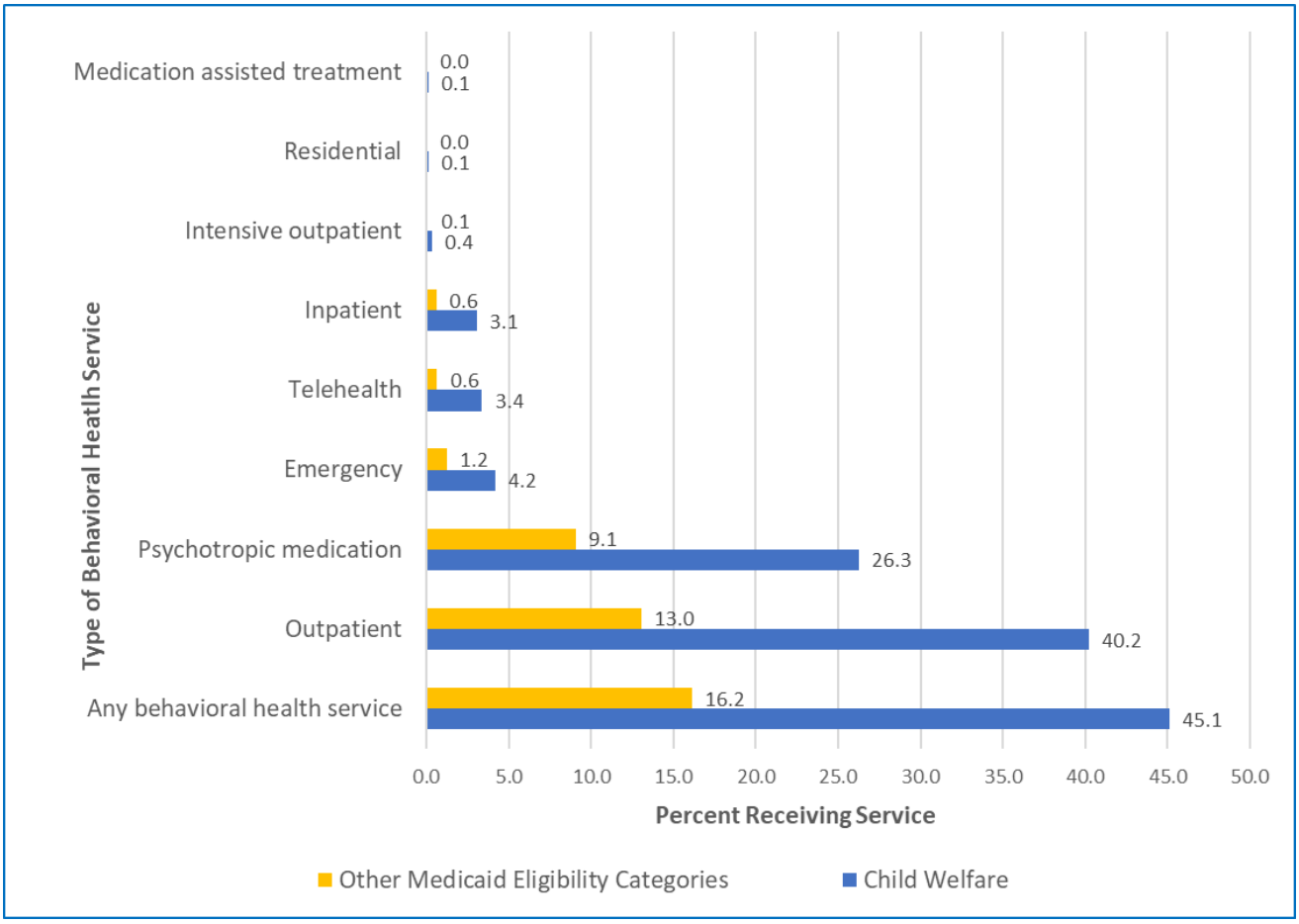
Figure 2. Children and Youth (Ages 3 to 17) Involved with the Child Welfare System Had Substantially Higher Prevalence of Behavioral Health Conditions Than Those in Other Medicaid Eligibility Groups, 2019



Children and youth involved with the child welfare system were several times more likely to use behavioral health services of each type than those in other Medicaid eligibility groups. Across behavioral health service types and age groups, children and youth involved with the child welfare system, including those who had exited the system to adoption or guardianship, used behavioral health services at rates several times higher than children and youth in other Medicaid eligibility groups. As shown in Figure 3 and Appendix Table 2, outpatient behavioral health services and psychotropic medications were the most common service types received. Outpatient services were delivered to 40.2 percent of children and youth in the child welfare eligibility group and 13.0 percent of other Medicaid beneficiaries in the same age range. Psychotropic medications were received by 26.3 percent of the child welfare group and 9.1 percent of other children and youth on Medicaid. These figures are across the full population of each group, regardless of whether the child had a behavioral health diagnosis. Not shown in the figure but available in Appendix Table 2, 13.3 percent of children and youth in the child welfare group received psychotropic medications from multiple classes, compared with 3.1 percent of children and youth in other Medicaid eligibility groups (see also Radel et al., 2023).

Appendix Tables 3 and 4 show behavioral health services for children and youth with and without behavioral health diagnoses, respectively. As with other tables in this brief, these tables include figures for the full age range of children and youth ages 3 to 17 and for subgroups ages 3 to 5, 6 to 11, and 12 to 17. As expected, children and youth with behavioral health diagnoses received behavioral health services at much higher rates than those without such diagnoses. Differences in service receipt were less prominent between the child welfare population and other Medicaid child beneficiaries among those with behavioral health diagnoses. Ninety percent of child welfare beneficiaries with behavioral health diagnoses received any behavioral health service in 2019, compared with 85 percent of other child beneficiaries with such diagnoses.

Figure 3. Children Involved with the Child Welfare System Were Frequent Users of Behavioral Health Services, 2019

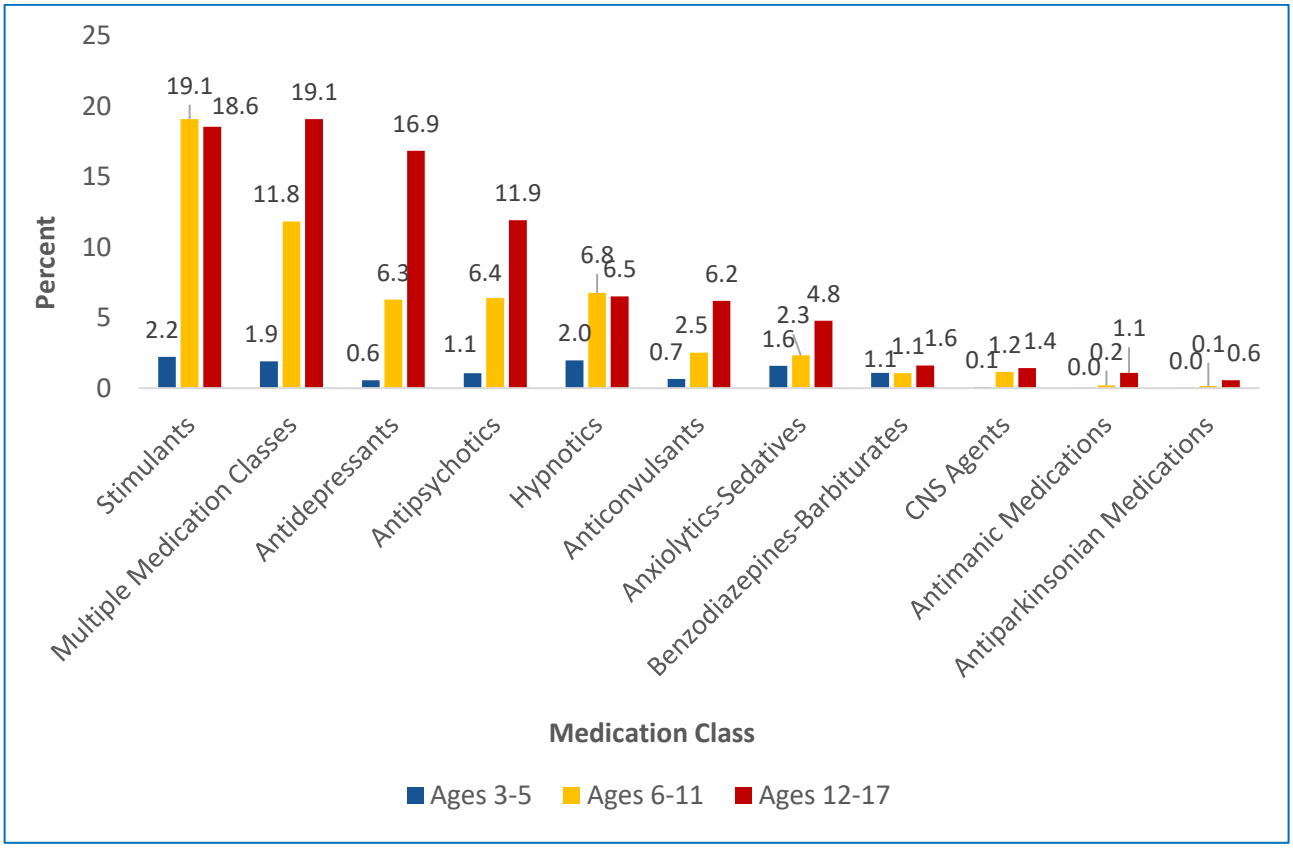


Psychotropic medications are a particularly common form of behavioral health service. Overuse of psychotropic medications for children and youth in the child welfare system has long been a concern because many such medications have not been assessed or approved for use by children and have potential negative side effects (Naylor et al., 2007; American Academy of Child and Adolescent Psychiatry, 2015). T-MSIS data enable us to quantify the receipt of such medications relatively easily, in more detail than was previously possible, and across the entire U.S.

National analysis shown in Figure 4 and Appendix Table 2 shows the proportion of children and youth in the child welfare group who receive various classes of psychotropic medications, by age group (3 to 5, 6 to 11, and 12 to 17 years). Stimulants are the most common type of medication prescribed in each age group, at 2.2 percent, 19.1 percent, and 18.6 percent respectively. Similar proportions of both the youngest and oldest groups receive medications from multiple classes, a practice known as polypharmacy. In the child welfare group, 1.9 percent of children ages 3 to 5, 11.8 percent of children ages 6 to 11, and 19.1 percent of children ages 12 to 17 experienced polypharmacy. In each age range, rates of polypharmacy were several times higher in the child welfare population than among children and youth in other Medicaid eligibility categories. Other commonly prescribed medications are antidepressants, received by nearly 17 percent of children ages 12 to 17 in the child welfare population, and antipsychotics, received by nearly 12 percent of the same group.

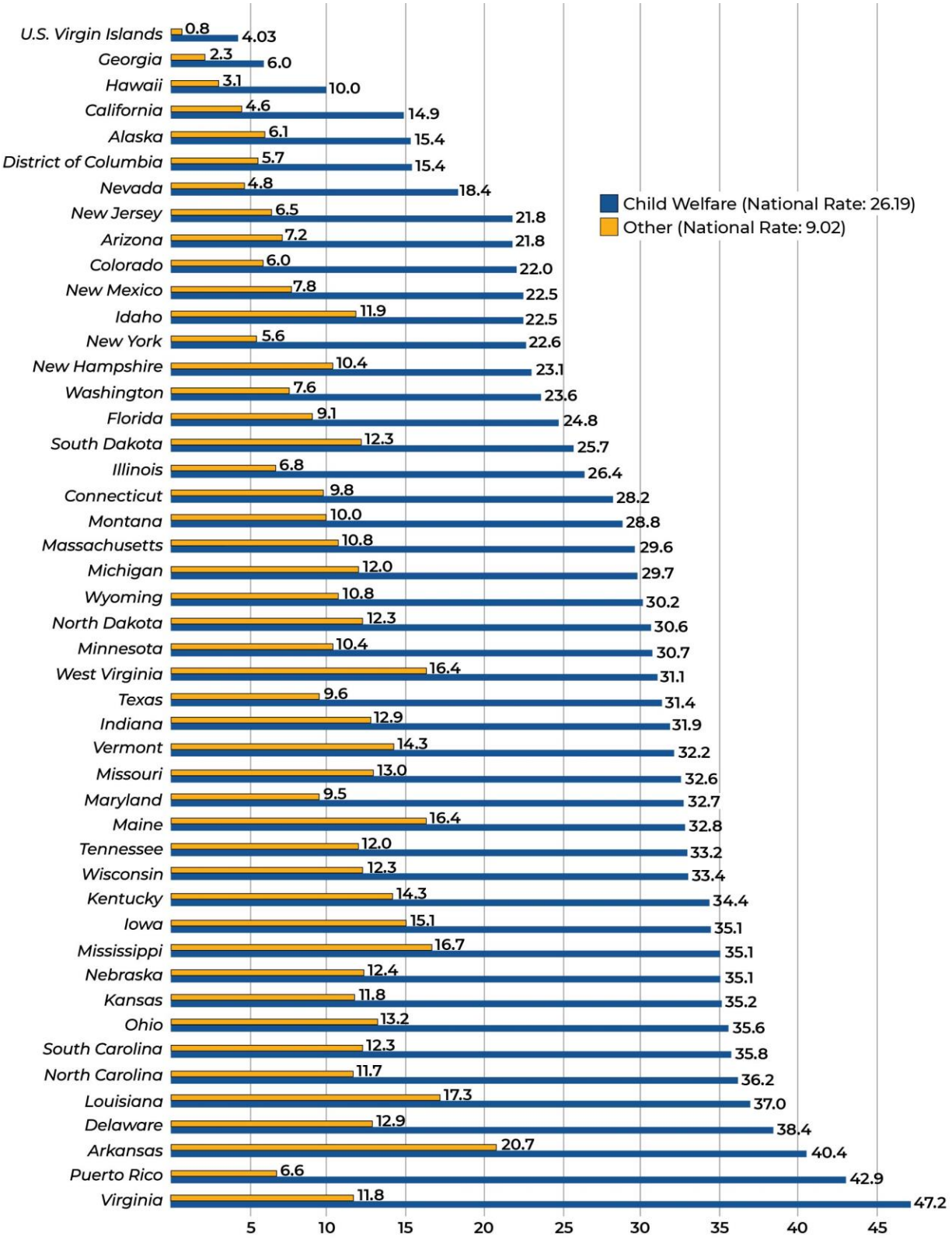
Figures for each class of medication broken down by whether the child or youth had behavioral health diagnoses are in Appendix Tables 3 and 4. Among child welfare beneficiaries with behavioral health conditions, about half (52 percent) received psychotropic medications, with 33 percent receiving stimulants, 21 percent receiving antidepressants, and 17 percent receiving antipsychotics. In addition, 9 percent of youth ages 12 to 17 in the child welfare group who did not have a behavioral health diagnosis received at least one psychotropic medication, and over 3 percent received medications from multiple classes. These rates were more than double those of beneficiaries in other Medicaid eligibility groups without behavioral health diagnoses (see Appendix Table 4).

Figure 4. Children Involved with the Child Welfare System Were Often Prescribed Psychotropic Medications, 2019



Rates of psychotropic medication use among child welfare beneficiaries vary widely by state. States at the high and low ends of the distribution varied widely. For example, 6.0 percent of children and youth ages 3 to 17 in the child welfare population in Georgia received any psychotropic medication, compared with 47.2 percent in Virginia (Figure 5). The states with the lowest rates of medication among child welfare beneficiaries are Georgia (6.0 percent), Hawaii (10.0 percent), and California (14.9 percent). The states with the highest medication rates are Virginia (47.2 percent), Arkansas (40.4 percent) and Delaware (38.4 percent). In addition, Puerto Rico had the second highest prescribing rate of any U.S. state or territory after Virginia. Medication rates among the broader population of Medicaid child beneficiaries also varied but were much lower than among children and youth in the child welfare system.

Figure 5. Percentage of Beneficiaries Receiving Any Psychotropic Medication Varies Widely by State, 2019



Source: TAF v5, 2018-2019.

Notes: See the Methods section of this brief for notes on data limitations and exclusions.

DISCUSSION

This analysis documents high rates of behavioral health conditions and service utilization among children and youth in the child welfare system. For most behavioral health conditions, children and youth in the child welfare group received diagnoses at three to five times the rates of children and youth in other Medicaid eligibility categories. Children and youth in the child welfare system frequently have had traumatic experiences, and their exposure to adverse childhood experiences is high (Greeson et al., 2011; Papovich, 2019; Liming, Akin and Brook, 2021). Their parents frequently also have behavioral health conditions. For these reasons, the high rates of behavioral health conditions among this group are not surprising. Routine behavioral health screening within the child welfare system may also drive high rates of diagnosis. Typically, states require that children entering foster care receive a behavioral health screening shortly after placement (Allen, 2010). Federal Child and Family Services Reviews conducted as part of oversight of states' foster care programs between 2015 and 2018 found that in 77 percent of applicable cases child welfare agencies performed required initial or ongoing assessments of children's behavioral health care needs (Children's Bureau, 2020).

Similarly, in 2019 those in the child welfare group received behavioral health services at rates several times higher than children and youth in other Medicaid eligibility groups. Use of psychotropic medications and outpatient mental health services were particularly high. These results may indicate higher severity of behavioral health conditions among the child welfare Medicaid and CHIP eligibility group. It is also possible that the child welfare system may facilitate access to behavioral services beyond what is typically received by other Medicaid beneficiaries. For example, routine behavioral health assessments at the time of foster care entry, categorical Medicaid eligibility, and access to case management services may increase access to behavioral health care.

Psychotropic medication use among child welfare beneficiaries varied significantly across states. These differences across states might partially reflect underlying differences in rates of behavioral health conditions, both within the child welfare population and between the child welfare group and other Medicaid beneficiaries. The variation across states suggests that a beneficiary's location within the systems of child welfare, health care, and public health might impact medication use more than individual factors such as health conditions (Leslie et al., 2011).

The wide variation in medication use rates across states could potentially be related to differences in state child welfare, public health, or health care systems. For example, access to primary care physicians or behavioral health providers, as well as clinician style and practice patterns might vary across states. Further, despite efforts to expand oversight in the last two decades, states have varied in adopting child welfare system policies and procedures related to the behavioral health of children and youth in their care such as screening for behavioral health conditions, developing prescription guidelines, or increasing behavioral health knowledge among stakeholders (U.S. Government Accountability Office, 2017). For example, Texas developed an oversight process that dramatically reduced prescription of psychotropic medications to children in the state's foster care system (National Center for State Courts, 2022).

This study takes advantage of data improvements in the TAF compared with its predecessor, the Medicaid Analytic Extract (MAX). To our knowledge, this brief and related publications coming out of this research represent the first T-MSIS analyses to focus on the child welfare population. The analysis illustrates the types of issues that can be analyzed using these data, which have been available annually since 2017. Children categorically eligible for Medicaid based on their eligibility for federal Title IV-E foster care and permanency programs may be identified through their eligibility code. Not analyzed here, additional codes allow identification of individuals eligible for Medicaid or CHIP based on having aged out of foster care as well as those whose eligibility derives from other state adoption subsidies not covered by Title IV-E.

This study did not focus on expenditures. Past research has demonstrated that children in the child welfare Medicaid eligibility group use a disproportionate share of Medicaid expenditures (Raghavan et al., 2012; Pires et al., 2013; MACPAC, 2015). For instance, Pires and colleagues found in 2013 (using data on expenditures during 2008) that while children and youth involved with the child welfare system represented 3 percent of Medicaid beneficiaries under age 18, they accounted for 29 percent of total behavioral health care spending for those in that age range. Similar patterns are visible in diagnoses and services in this analysis and undoubtedly still exist with respect to expenditures as well.

LIMITATIONS

While these analyses provide important insights into the behavioral health needs and service utilization of children involved with the child welfare system, there are limitations. Most significantly, it is challenging to identify the child welfare population accurately in Medicaid claims data, both overall and particularly to pinpoint children and youth in foster care. We describe the particular challenges below. Given these issues and comparisons with other counts of children and youth involved with the child welfare system, we expect we have undercounted children and youth involved with the child welfare system and particularly those in foster care. However, the large numbers we did identify provide a robust view of the behavioral health issues and services of this population and we have not identified reasons to believe those included in our analysis would have different behavioral health needs than those we may have missed.

T-MSIS reports a single eligibility group code for each beneficiary. If a beneficiary is eligible for Medicaid/CHIP through multiple pathways, the state assigns the eligibility pathway affording the highest level of medical coverage. For example, children in foster care who have disabilities may qualify for Medicaid/CHIP through Supplemental Security Income (SSI) eligibility and thus appear in the data as SSI beneficiaries rather than child welfare beneficiaries. Approximately 5 percent of children in foster care in 2019 received SSI benefits (Stoltzfus, Davies and Morton, 2021).

These analyses rely on the Medicaid eligibility code indicating participation in the federal Title IV-E foster care, adoption, or guardianship programs. While often interpreted in the literature as identifying children in foster care (e.g., Leckman-Westin et al., 2018; Pires et al., 2013), the code includes children receiving federal benefits through any of these three programs and excludes many children in foster care who are not Title IV-E eligible, though most children in foster care who are not Title IV-E eligible receive Medicaid benefits through other eligibility categories (Child Welfare Information Gateway, 2022; MACPAC, 2015). In federal fiscal year 2019, 40 percent of children in foster care nationally were Title IV-E eligible, and data from Title IV-E claims indicate that 23 percent of Title IV-E beneficiaries overall were children in foster care, 72 percent received adoption subsidies, and 5 percent received guardianship assistance payments. (Data for these programs, including average monthly caseloads and Title IV-E participation rates, can be found on the Children's Bureau website.) Thus, most children and youth in our analytical sample were most likely adopted from foster care, not currently in foster care. Children adopted from foster care typically continue to be Medicaid eligible until they turn 18, regardless of family income, disability, or other factors that limit Medicaid eligibility for other groups.

In addition, for a range of reasons, adopted children and those in guardianships may have different behavioral health conditions and diagnostic patterns, and may use services differently, than children in foster care. The current child welfare involvement of children and youth in foster care may amplify their access to and use of behavioral health services in ways that are different from adopted children and youth. Conversely, adoptive families and foster families may have different inclinations about use of behavioral health services and psychotropic medications. In addition, for many adoptive families Medicaid coverage is secondary to private family health care insurance (Kelly, 2020). Therefore, Medicaid claims may not fully represent the health care utilization of such children and youth. Because children and youth in foster care and adoption may have

different Medicaid service utilization patterns, results here should not be taken as representative of either population alone.

Eligibility group code data may be missing, inaccurate, or unusable for some states. CMS, in the DQ Atlas, categorizes states as low, medium, or high concern or as unusable or unclassified, based on (1) the percentage of beneficiaries missing an eligibility group code and (2) the number of large mandatory eligibility groups with no enrollment in the TAF.[4] Two states are unclassified, 47 states have data of low or medium concern, and 4 states have data of high concern. Supporting data on the DQ Atlas indicate how many states show no enrollment for the 12 large mandatory groups (including Title IV-E adoption assistance, foster care, or guardianship care) but do not specify which of these groups each state is missing. In our national analyses, we did not exclude states with medium or high concern since the aim was to aggregate, not compare, data across states. As noted in the Methods section, six states were excluded from the state-specific analysis because of data quality issues.

Finally, when claims are used to identify beneficiaries with behavioral health conditions, most beneficiaries with such conditions, by definition, have received some behavioral health service. Individuals with behavioral conditions were identified using the CCW algorithm, which provides a standardized method for researchers to identify classes of conditions in Medicare and Medicaid research files. In identifying behavioral health conditions, the algorithm requires "at least 1 inpatient claim or 2 other non-drug claims of any service type" with condition-specific diagnosis codes during a two-year period, though the services claimed need not be specific to the behavioral health diagnosis. Our count may be an underestimate if some beneficiaries had a behavioral health condition but did not receive services that met CCW criteria or the relevant diagnosis code was not included in the claim. Alternatively, our figures may overestimate the number of individuals with behavioral health conditions if some beneficiaries received treatment that met CCW criteria but did not truly have these conditions. In addition, our findings may overestimate receipt of behavioral health services among those with behavioral health conditions because the denominator does not include individuals with behavioral health conditions who did not receive any behavioral health services.

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APPENDIX TABLES

Appendix Table 1. Percentage of child and adolescent Medicaid and CHIP beneficiaries with behavioral health conditions in 2019, by condition, child welfare status, and age

	Child Welfare Population				Other Beneficiaries			
	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs
Denominator: Total count of beneficiaries	719,908	124,351	283,343	312,214	31,473,608	6,650,494	12,907,417	11,915,697
Behavioral Health Conditions								
Any behavioral health condition	43.0	22.2	44.9	49.5	13.6	3.1	13.8	19.3
Trauma/stressor disorders	22.9	15.8	25.2	23.7	4.7	1.5	4.9	6.2
ADHD	21.5	4.4	24.8	25.3	6.5	0.9	7.9	8.0
Behavior/conduct disorders	11.7	4.5	11.4	14.8	2.6	0.8	2.9	3.3
Anxiety	8.7	3.0	7.3	12.2	3.3	0.5	2.5	5.6
Depression	7.5	0.3	2.9	14.6	2.5	0.0	0.8	5.8
Mood disorders	7.0	0.8	5.4	11.1	1.3	0.1	1.0	2.2
Substance use disorder	1.5	0.1	0.1	3.3	0.3	0.0	0.0	0.8
Psychotic disorder	0.8	0.0	0.4	1.4	0.1	0.0	0.1	0.3

Source: Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF), 2018-2019 v5.

ADHD = attention deficit hyperactivity disorder.

Each cell contains the percentage of beneficiaries within the subpopulation (column) who had the behavioral health condition (row) in 2019. For example, the leftmost number in the row "Any behavioral health condition" shows contains the percentage of beneficiaries in the child welfare population ages 3 to 17 who had any behavioral health condition in 2019.

If an individual had multiple behavioral health conditions in 2019, that individual is represented in multiple rows.

This analysis includes beneficiaries ages 3 to 17 years enrolled in Medicaid or CHIP with full or comprehensive benefits who were enrolled for at least six consecutive months. Age was determined as of December 31 of each calendar year.

Appendix Table 2. Percentage of child and adolescent Medicaid and CHIP beneficiaries that received behavioral health services in 2019, by child welfare status and age

	Child Welfare Population				Other Beneficiaries			
	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs
Denominator: Total count of beneficiaries	719,908	124,351	283,343	312,214	31,473,608	6,650,494	12,907,417	11,915,697
Among All Beneficiaries								
Any behavioral health service	45.1	26.4	46.4	51.3	16.2	6.3	16.0	21.8
Outpatient	40.2	23.9	42.3	44.9	13.0	4.0	13.4	17.8
Mental health medication	26.3	6.5	26.1	34.3	9.1	3.0	8.7	12.8
Emergency	4.2	0.3	2.4	7.4	1.2	0.1	0.7	2.5
Telehealth	3.4	0.9	3.3	4.4	0.6	0.1	0.6	1.0
Inpatient	3.1	0.2	1.8	5.3	0.6	0.0	0.3	1.3
Intensive outpatient	0.4	0.1	0.2	0.6	0.1	0.0	0.1	0.2
Residential	0.1	DS	0.1	0.2	0.0	DS	0.0	0.0
Medication assisted treatment	0.1	DS	0.0	0.2	0.0	0.0	0.0	0.0
Among All Beneficiaries								
Mental health medications								
Stimulants	15.9	2.2	19.1	18.6	4.4	0.4	5.5	5.5
Antidepressants	9.9	0.6	6.3	16.9	2.7	0.1	1.4	5.7
Antipsychotics	7.9	1.1	6.4	11.9	1.7	0.4	1.4	2.8
Hypnotics	5.8	2.0	6.8	6.5	1.4	0.4	1.6	1.7
Anticonvulsants	3.8	0.7	2.5	6.2	1.0	0.2	0.7	1.7
Anxiolytics-sedatives	3.3	1.6	2.3	4.8	1.5	1.3	1.2	1.9
Benzodiazepines-barbiturates	1.3	1.1	1.1	1.6	0.8	0.7	0.6	1.0
CNS agents	1.1	0.1	1.2	1.4	0.3	0.0	0.3	0.3
Antimanic medications	0.6	0.0	0.2	1.1	0.1	0.0	0.0	0.2
Antiparkinsonian medications	0.3	0.0	0.1	0.6	0.0	0.0	0.0	0.1
Multiple medication classes	13.3	1.9	11.8	19.1	3.1	0.4	2.7	5.1

Source: Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF), 2018-2019 v5.

DS = data are suppressed due to small sample size (N < 11).

Each cell contains the percentage of beneficiaries within the subpopulation (column) who received the service or medication type (row) in 2019. For example, the leftmost number in the row "Any behavioral health service" shows the percentage of beneficiaries in the child welfare population ages 3 to 17 who received any behavioral health service in 2019.

This analysis includes beneficiaries ages 3 to 17 years enrolled in Medicaid or CHIP with full or comprehensive benefits who were enrolled for at least six consecutive months. Age was determined as of December 31 of each calendar year.

Appendix Table 3. Percentage of child and adolescent Medicaid and CHIP beneficiaries with behavioral health conditions that received behavioral health services in 2019, by child welfare status and age

	Child Welfare Population				Other Beneficiaries			
	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs
Denominator: Total count of those with a behavioral health condition	309,394	27,586	127,263	154,545	4,281,635	207,566	1,778,888	2,295,181
Among Those with Behavioral Health Conditions								
Any behavioral health service	90.02	88.44	90.29	90.09	85.34	85.00	86.20	84.70
Outpatient	86.16	87.28	87.40	84.94	81.18	82.96	83.02	79.58
Mental health medication	52.19	16.86	50.22	60.12	45.79	19.81	44.89	48.84
Emergency	9.18	1.14	5.06	14.02	7.50	1.59	4.17	10.61
Telehealth	7.75	3.95	7.18	8.91	4.58	3.37	4.25	4.95
Inpatient	7.12	.84	4.07	10.74	4.49	1.15	2.12	6.63
Intensive outpatient	.81	.26	.54	1.13	.56	.20	.35	.76
Residential	.31	DS	.15	.49	.09	DS	.04	.13
Medication assisted treatment	.23	DS	.05	.42	.08	.05	.03	.13
Among Those with Behavioral Health Conditions								
Mental health medications								
Stimulants	33.21	8.78	38.48	33.24	28.12	10.67	34.93	24.41
Antidepressants	21.15	2.04	12.95	31.32	17.11	1.52	8.79	24.97
Antipsychotics	16.73	3.42	13.09	22.11	9.00	2.89	7.06	11.06
Hypnotics	12.17	6.50	13.72	11.91	8.57	6.76	10.14	7.52
Anticonvulsants	7.56	1.30	4.62	11.10	4.56	1.39	2.99	6.07
Anxiolytics-sedatives	6.36	2.95	4.22	8.72	5.44	3.23	3.61	7.06
Benzodiazepines-barbiturates	1.67	1.19	1.19	2.16	1.93	1.82	1.33	2.40
CNS agents	2.30	.20	2.39	2.61	1.65	.27	1.93	1.55
Antimanic medications	1.20	DS	.41	2.06	.45	.04	.18	.70
Antiparkinsonian medications	.65	DS	.29	1.05	.26	.02	.12	.39
Multiple medication classes	28.23	6.37	24.18	35.47	19.46	6.36	16.93	22.61

Source: Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF), 2018-2019 v5.

DS = data are suppressed due to small sample size (N < 11). See additional notes from Appendix Tables 1-2, which apply also to this table.

Appendix Table 4. Percentage of child and adolescent Medicaid and CHIP beneficiaries without behavioral health conditions that received behavioral health services in 2019, by child welfare status and age

	Child Welfare Population				Other Beneficiaries			
	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs	3-17 yrs	3-5 yrs	6-11 yrs	12-17 yrs
Denominator: Total count of those with no behavioral health conditions	410,514	96,765	156,080	157,669	27,191,973	6,442,928	11,128,529	9,620,516
Among Beneficiaries Without Behavioral Health Conditions								
Any behavioral health service	11.22	8.77	10.62	13.32	5.26	3.77	4.78	6.82
Mental health medication	6.70	3.51	6.36	9.00	3.28	2.45	2.93	4.23
Outpatient	5.65	5.78	5.56	5.65	2.30	1.41	2.22	3.00
Emergency	.43	.08	.21	.87	.24	.05	.12	.50
Telehealth	.05	.04	.05	.06	.02	.01	.01	.02
Inpatient	.02	DS	DS	.03	.00	.00	.00	.01
Intensive outpatient	.01	DS	.01	.02	.00	.00	.00	.01
Medication assisted treatment	.00	DS	DS	DS	.00	.00	.00	.00
Residential	.00	DS	.00	DS	.00	.00	DS	.00
Among Beneficiaries Without Behavioral Health Conditions								
Mental health medications								
Stimulants	2.93	.36	3.29	4.15	.68	.08	.78	.95
Antidepressants	1.37	.12	.84	2.68	.48	.03	.23	1.07
Antipsychotics	1.19	.39	.95	1.92	.60	.37	.50	.87
Hypnotics	1.03	.67	1.08	1.21	.27	.18	.27	.33
Anticonvulsants	.95	.47	.81	1.39	.42	.19	.34	.67
Anxiolytics-sedatives	.93	1.21	.77	.91	.88	1.21	.83	.73
Benzodiazepines-barbiturates	1.02	1.05	.95	1.07	.62	.65	.51	.71
CNS agents	.16	DS	.15	.25	.03	.00	.03	.05
Antimanic medications	.06	DS	.03	.12	.01	.00	.01	.02
Antiparkinsonian medications	.04	.01	.03	.07	.01	.00	.01	.02
Multiple medication classes	1.99	.62	1.76	3.06	.54	.22	.44	.87

Source: Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF), 2018-2019 v5.
DS = data are suppressed due to small sample size (N < 11). See additional notes from Appendix Tables 1-2, which apply also to this table.

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